

REMARKS

This response responds to the Office Action dated October 3, 2005 in which the Examiner rejected claims 1, 4-5, 6, 9-10 and 13 under 35 U.S.C. §103 and objected to claims 2-3, 7-8 and 11-12 as being dependent upon a rejected base claim but would be allowable if rewritten in independent form.

As indicated above, Claims 1-9 have been amended for stylist reasons. The amendments are unrelated to a statutory requirement for patentability and do not narrow the literal scope of the claims.

Claim 1 claims an image processing apparatus, claim 6 claims a computer readable medium storing an image processing program and claim 10 claims an image processing method. The apparatus, computer readable medium and method include storing at least two color information files having different contents from each other, selecting one of the at least two color information files according to brightness of image data and externally sending the selected color information filed by attaching the file to the image data.

Through the structure, computer readable medium and method of the claimed invention externally sending a selected color information filed by attaching the file to the image data as claimed in claims 1, 6 and 10, the claimed invention provides an image processing apparatus which allows high-precision color conversion. The prior art does not show, teach or suggest the invention as claimed in claims 1, 6 and 10.

Claims 1, 4-5, 6, 9-10 and 13 were rejected under 35 U.S.C. §103 as being unpatentable over *Furukawa et al.* (JP 5-91307) in view of *Kiyokawa* (U.S. Publication No. 2003/0112334).

Applicant respectfully traverses the Examiner's rejection of the claims under 35 U.S.C. §103. The claims have been reviewed in light of the Office Action, and for reasons which will be set forth below, Applicant respectfully requests the Examiner withdraws the rejection to claims and allows the claims to issue.

Furukawa et al. appears to disclose in Figure 3, a difference color correction characteristic according to signal levels (three levels) are shown. (The low signal level represents the shadow portion, and the high signal level represents the highlight portion.) By employing such look-up tables having different color correction characteristics according to the brightness, it is possible to change the amounts of color correction according to the brightness even if the color difference signals have the same value. (Page 7, lines 2-8).

Thus, *Furukawa et al.* merely discloses different color correction characteristics provided as look-up tables in order to change the amount of color correction according to the brightness. Nothing in *Furukawa et al.* shows, teaches or suggests externally sending selected color information file by attaching the file to image data as claimed in claims 1, 6 and 10.

Kiyokawa appears to disclose [0002] an image processing apparatus and method of performing color matching processing on an input image photographed by a digital still camera or a digital video camera. [0032] FIG. 1 is a block diagram showing the system configuration of this embodiment. [0033] This system comprises a camera 11 as an input device, a host computer 10 for performing image processing including color matching processing and edit processing on image data, and a monitor 12 and a printer 13 as output devices. [0034] The camera 11 is an image or picture input device such as a digital still camera or a digital video camera

and can take various environmental conditions and adjustment states in photographing. Therefore, the camera 11 varies its photographing conditions (input characteristics) from one photographing to another, so the input characteristics cannot be specified. Also, the camera 11 can process both motion and still images. [0036] The host computer 10 causes the external storage 14 to store image data supplied from the camera 11 and performs image processing on the stored image data. [0037] Furthermore, the host computer 10 causes the external storage 14 to store photographing conditions supplied from the camera 11 or input by a user in connection with object image data. [0051] To perform color matching processing corresponding to any of the above combinations, the CPU 17 reads out an input profile corresponding to the input device and an output profile corresponding to the output device from the external storage 14. Each profile stores data representing the relationship between a device dependent color space and a device independent color space. Therefore, the input profile stores data for converting an image signal in a color space dependent on the input device into an image signal in a device independent color space. On the other hand, the output profile stores data for converting the image signal in the device independent color space into an image signal in a color space dependent on the output device. The data of the output profile sometimes further contains color space compression for compressing input image data into the range of color reproduction of the output device, in addition to the color space conversion. [0052] That is, on the basis of the input device-output device combination, the CPU 17 first reads out an input profile from the external storage 14. By using this input profile, the CPU 17 converts an image signal in a color space dependent on the input device into an image signal in a device independent color

space. [0053] Next, the CPU 17 reads out an output profile corresponding to the output device from the external storage 14. By using this output profile, the CPU 17 converts the image signal in the device independent color space into an image signal in a color space dependent on the output device. [0054] As described above, a profile used in the color matching processing is data based on the characteristics of a device. [0057] FIG. 3 is a view showing the correspondence between photographing condition groups and profiles. Photographing condition groups (to be referred to as "reference photographing conditions" hereinafter) and corresponding input profiles are stored in the external storage 14 or the camera 11 so that the host computer 10 can read out both data. [0058] More specifically, it is only necessary to form a plurality of input profiles on the basis of a plurality of images photographed by the camera 11 under a plurality of representative photographing conditions (e.g., colors, white balances, and exposure amounts of illuminating light during photographing). [0059] [Procedure] [0060] FIG. 4 is a flow chart showing the procedure of the color matching processing in this embodiment executed by the CPU 17. [0061] In step S31, the CPU 17 stores input image data from the camera 11 into the external storage 14. In step S32, the CPU 17 stores an input photographing condition of the image data from the camera 11 into the external storage 14. [0062] In steps S33 and S34, the CPU 17 selects input and output profiles used in the color matching processing. In step S35, the CPU 17 performs the color matching processing on the image data. In step S36, the CPU 17 outputs the image data subjected to the color matching processing to an output device, i.e., the monitor 12 or the printer 13.

Thus, *Kiyokawa* merely discloses storing image data and photographing conditions from a camera 11 [0036], [0037]. Nothing in *Kiyokawa* shows, teaches or suggests that after selecting a color information file, externally sending the selected color information file by attaching the file to image data as claimed in claims 1, 6 and 10. Rather, *Kiyokawa* merely discloses inputting storage data and photographing conditions from a camera 11.

Additionally, *Kiyokawa* merely discloses the photographing conditions are supplied from a camera or input by a user [0037]. Nothing in *Kiyokawa* shows, teaches or suggests the photographing conditions a) are selected according to brightness of image data or b) are attached to the image data as claimed in claims 1, 6 and 10. Rather, *Kiyokawa* merely discloses that the photographing conditions are camera adjustments or are input by a user and furthermore *Kiyokawa* does not disclose whether they are attached to the image data or are separately input.

Furthermore, *Kiyokawa* merely discloses forming input profiles of images which are input from a camera. Nothing in *Kiyokawa* shows, teaches or suggests externally sending information once it is selected as claimed in claims 1, 6 and 10. Rather, *Kiyokawa* merely discloses how the information is input into the system i.e. how it is stored in the storage device to be used during processing (and not subsequently externally sending the information by attaching it to image data.)

Since neither *Furukawa et al.* or *Kiyokawa* show, teach or suggest externally sending selected color information file by attaching the file to image data as claimed in claims 1, 6 and 10, Applicant respectfully requests the Examiner withdraws the rejection to claims 1, 6 and 10 under 35 U.S.C. §103.

Claims 4-5, 9 and 13 depend from claims 1, 6 and 10 and recite additional features. Applicant respectfully submits that claims 4-5, 9 and 13 would not have been obvious within the meaning of 35 U.S.C. §103 over *Furukawa et al.* and *Kiyokawa* at least for the reasons as set forth above. Therefore, Applicant respectfully requests the Examiner withdraws the rejection to claims 4-5, 9 and 13 under 35 U.S.C. §103.

Since objected to claims 2-3, 7-8 and 11-12 depend from allowable claims, Applicant respectfully requests the Examiner withdraws the objection thereto.

Thus it now appears that the application is in condition for reconsideration and allowance. Reconsideration and allowance at an early date are respectfully requested.

If for any reason the Examiner feels that the application is not now in condition for allowance, the Examiner is requested to contact, by telephone, the Applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed within the currently set shortened statutory period, Applicant respectfully petitions for an appropriate extension of time. The fees for such extension of time may be charged to our Deposit Account No. 02-4800.

In the event that any additional fees are due with this paper, please charge
our Deposit Account No. 02-4800.

Respectfully submitted,

BUCHANAN INGERSOLL PC

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